In the Claims:

1. (Original) A method of processing bioinformatic data comprising:

accepting bioinformatic data from multiple corresponding bioinformatic data suppliers;

analyzing a subset of the bioinformatic data to generate bioinformatic data analysis results;

providing the bioinformatic data analysis results to at least one bioinformatic data analysis results customer; and

compensating the bioinformatic data suppliers that supplied the subset of the bioinformatic data for their supplying the subset of the bioinformatic data that was analyzed to generate the bioinformatic data analysis results that were provided to the at least one bioinformatic data analysis results customer.

2. (Original) A method according to Claim 1 wherein the bioinformatic data comprises at least one of genomic data, chemical data, data on an effect of drugs or other therapies, medical patient data and information about phenotypes or disease states.

3. (Original) A method according to Claim 1 wherein the bioinformatic data analysis results comprise at least one of specifications of biological pathways, relationships between expression patterns of multiple genes, gene sequences for genes that are related in a particular biological phenomenon, gene sequences with homology to genes of unknown function, peptide sequences for proteins that are related to a biological phenomena, peptide sequences with homology to proteins of unknown function, a chemical specification of a binding site to a protein that is related to a biological phenomena, a toxicity profile of a therapeutic chemical, and a chemical specification of a therapeutic chemical.

4. (Original) A method according to Claim 1 wherein the bioinformatic data suppliers comprise at least one of a pharmaceutical company research and development lab, an expression analysis outsourcer, a genome sequencing searcher and an academic research lab.

5. (Original) A method according to Claim 1 wherein the bioinformatic data analysis results customers comprise at least one of a pharmaceutical company, a drug development company, an academic laboratory, a medical doctor and a genetic counselor.

6. (Original) A method according to Claim 1 wherein the accepting is preceded by generating the bioinformatic data at the corresponding bioinformatic data suppliers.

7. (Original) A method according to Claim 6:

wherein the generating further comprises generating metadata corresponding to the bioinformatic data at the corresponding bioinformatic data suppliers; and

wherein the accepting comprises accepting the bioinformatic data and the corresponding metadata from the corresponding bioinformatic data suppliers.

8. (Original) A method according to Claim 7 wherein the metadata comprises at least one of a description of a cell from which the associated bioinformatic data was generated, a description of an environment from which the associated bioinformatic data was generated, a description of a tool and/or experimental protocol that was used to generate the bioinformatic data, a description of a time at which the associated bioinformatic data was generated, a description of a chemical with which a subject of the bioinformatic data was treated, and a description of a pre-treatment state of the subject of the bioinformatic data.

9. (Original) A method according to Claim 1 wherein the accepting is followed by: associating the bioinformatic data with the corresponding bioinformatic data suppliers.

10. (Original) A method according to Claim 1:

wherein the analyzing is preceded by identifying the subset of the bioinformatic data from the bioinformatic data; and

wherein the analyzing is followed by recording the identification of the subset of the bioinformatic data that was used in the analyzing.

11. (Original) A method according to Claim 1 wherein the analyzing comprises at least one of expression profiling, proteomic analysis, image analysis, clustering, sorting and generating a self-organized map.

12. (Original) A method according to Claim 1 wherein the providing comprises selling the bioinformatic data analysis results to the at least one bioinformatic data analysis results customer for a lump sum payment, a royalty stream, and/or securities, such as corporate stock.

13. (Original) A method according to Claim 12 wherein the compensating comprises providing the bioinformatic data suppliers that supplied the subset of the bioinformatic data with a portion of the lump sum payment, the royalty stream and/or securities, such as corporate stock, as compensation for their supplying the subset of the bioinformatic data that was analyzed to generate the bioinformatic data analysis results that were sold to the at least one bioinformatic data analysis results customer.

14. (Original) A method according to Claim 1:

wherein the analyzing further comprises:

identifying the subset of the bioinformatic data from the bioinformatic data; and

determining a relative contribution of members of the subset of the bioinformatic data to the bioinformatic data analysis results.

15. (Original) A method according to Claim 14 wherein the compensating comprises compensating the bioinformatic data suppliers that supplied the subset of the bioinformatic data for their supplying the subset of the bioinformatic data as a function of a relative contribution of the members of the subset of the bioinformatic data to the bioinformatic data analysis results.

16. (Original) A method of providing bioinformatic data comprising:

supplying bioinformatic data to a bioinformatic data clearinghouse; and

accepting compensation from the bioinformatic data clearinghouse for the bioinformatic data, wherein the compensation is a function of use of the bioinformatic data by the bioinformatic data clearinghouse to generate bioinformatic data analysis results that are provided to at least one bioinformatic data analysis results customer, relative to use of other bioinformatic data by the bioinformatic data clearinghouse to generate the bioinformatic data analysis results that are provided to the at least one bioinformatic data analysis results customer.

17. (Original) A method according to Claim 16 wherein the bioinformatic data comprises at least one of genomic data, chemical data, data on an effect of drugs or other therapies, medical patient data and information about phenotypes or disease states.

18. (Original) A method according to Claim 16 wherein the bioinformatic data analysis results comprise at least one of specifications of biological pathways, relationships between expression patterns of multiple genes, gene sequences for genes that are related in a particular biological phenomenon, gene sequences with homology to genes of unknown function, peptide sequences for proteins that are related to a biological phenomena, peptide sequences with homology to proteins of unknown function, a chemical specification of a binding site to a protein that is related to a biological phenomena, a toxicity profile of a therapeutic chemical, and a chemical specification of a therapeutic chemical.

19. (Original) A method according to Claim 16 wherein the supplying and accepting are performed by at least one of a pharmaceutical company research and development lab, an expression analysis outsourcer, a genome sequencing researcher and an academic research lab.

20. (Original) A method according to Claim 16 wherein the bioinformatic data analysis results customers comprise at least one of a pharmaceutical company, a

drug development company, an academic laboratory, a medical doctor and a genetic counselor.

21. (Original) A method according to Claim 16 wherein the supplying is preceded by generating the bioinformatic data.

22. (Original) A method according to Claim 21:

wherein the generating further comprises generating metadata corresponding to the bioinformatic data; and

wherein the supplying comprises supplying the bioinformatic data and the corresponding metadata.

23. (Original) A method according to Claim 22 wherein the metadata comprises at least one of a description of a cell from which the associated bioinformatic data was generated, a description of an environment from which the associated bioinformatic data was generated, a description of a tool and/or experimental protocol that was used to generate the bioinformatic data, a description of a time at which the associated bioinformatic data was generated, a description of a chemical with which a subject of the bioinformatic data was treated, and a description of a pretreatment state of the subject of the bioinformatic data.

24. (Original) A system for processing bioinformatic data comprising:

a plurality of bioinformatic data suppliers;

at least one bioinformatic data analysis results customer; and

a bioinformatic data clearinghouse that is configured to accept bioinformatic data from the plurality of bioinformatic data suppliers, to analyze a subset of bioinformatic data to generate bioinformatic data analysis results, to provide the bioinformatic data analysis results to the at least one bioinformatic data analysis results customer and to compensate the bioinformatic data suppliers that supplied the subset of bioinformatic data for their supplying the subset of bioinformatic data that was analyzed to generate the bioinformatic data analysis results that were provided to the at least one bioinformatic data analysis results customer.

25. (Original) A system according to Claim 24 wherein the bioinformatic data comprises at least one of genomic data, chemical data, data on an effect of drugs or other therapies, medical patient data and information about phenotypes or disease states.

26. (Original) A system according to Claim 24 wherein the bioinformatic data analysis results comprise at least one of specifications of biological pathways, relationships between expression patterns of multiple genes, gene sequences for genes that are related in a particular biological phenomenon, gene sequences with homology to genes of unknown function, peptide sequences for proteins that are related to a biological phenomena, peptide sequences with homology to proteins of unknown function, a chemical specification of a binding site to a protein that is related to a biological phenomena, a toxicity profile of a therapeutic chemical, and a chemical specification of a therapeutic chemical.

27. (Original) A system according to Claim 24 wherein the bioinformatic data suppliers comprise at least one of a pharmaceutical company research and development lab, an expression analysis outsourcer, a genome sequencing researcher and an academic research lab.

28. (Original) A system according to Claim 24 wherein the bioinformatic data analysis results customers comprise at least one of a pharmaceutical company, a drug development company, an academic laboratory, a medical doctor and a genetic counselor.

29. (Original) A system according to Claim 24 wherein the plurality of bioinformatic data suppliers are configured to generate the bioinformatic data.

30. (Original) A system according to Claim 29:

wherein the plurality of bioinformatic data suppliers are configured to generate metadata corresponding to the bioinformatic data; and

wherein the bioinformatic data clearinghouse is configured to accept the bioinformatic data and the corresponding metadata from the plurality of bioinformatic data suppliers.

31. (Original) A system according to Claim 30 wherein the metadata comprises at least one of a description of a cell from which the associated bioinformatic data was generated, a description of an environment from which the associated bioinformatic data was generated, a description of a tool and/or experimental protocol that was used to generate the bioinformatic data and a description of a time at which the associated bioinformatic data was generated, a description of a chemical with which a subject of the bioinformatic data was treated, and a description of a pre-treatment state of the subject of the bioinformatic data.

32. (Original) A system according to Claim 24 wherein the bioinformatic data clearinghouse is further configured to associate the bioinformatic data with the corresponding bioinformatic data suppliers.

33. (Original) A system according to Claim 24:

wherein the bioinformatic data clearinghouse is further configured to identify the subset of the bioinformatic data from the bioinformatic data, and to record the identification of the subset of the bioinformatic data that was used in the analyzing.

34. (Original) A system according to Claim 24 wherein the analyzing comprises at least one of expression profiling, proteomic analysis, image analysis, clustering, sorting and generating a self-organized map.

35. (Original) A system according to Claim 24 wherein the bioinformatic data clearinghouse is further configured to provide the bioinformatic data analysis results to the at least one bioinformatic data analysis results customer for a lump sum payment, a royalty stream, and/or securities, such as corporate stock.

36. (Original) A system according to Claim 35 wherein the bioinformatic data clearinghouse is further configured to provide the bioinformatic data suppliers that supplied the subset of the bioinformatic data with a portion of the lump sum payment, the royalty stream and/or the securities as compensation for their supplying the subset of the bioinformatic data that was analyzed to generate the bioinformatic data analysis results that were provided to the at least one bioinformatic data analysis results customer.

37. (Original) A system according to Claim 24 wherein the bioinformatic data clearinghouse is further configured to identify the subset of the bioinformatic data from the bioinformatic data, and to determine a relative contribution of members of the subset of the bioinformatic data to the bioinformatic data analysis results.

38. (Original) A system according to Claim 37 wherein the bioinformatic data clearinghouse is further configured to compensate the bioinformatic data suppliers that supplied the subset of the bioinformatic data for their supplying the subset of the bioinformatic data as a function of a relative contribution of the members of the subset of the bioinformatic data to the bioinformatic data analysis results.

39. (Withdrawn) A bioinformatic data clearinghouse comprising:

means for accepting bioinformatic data from a plurality of bioinformatic data suppliers;

means for analyzing a subset of the bioinformatic data to generate bioinformatic data analysis results;

means for providing the bioinformatic data analysis results to at least one bioinformatic data analysis results customer; and

means for compensating the bioinformatic data suppliers that supplied the subset of the bioinformatic data for their supplying the subset of the bioinformatic data that was analyzed to generate the bioinformatic data analysis results that were provided to the at least one bioinformatic data analysis results customer.

40. (Withdrawn) A clearinghouse according to Claim 39 wherein the bioinformatic data comprises at least one of genomic data, chemical data, data on an effect of drugs or other therapies, medical patient data and information about phenotypes or disease states.

41. (Withdrawn) A clearinghouse according to Claim 39 wherein the bioinformatic data analysis results comprise at least one of specifications of biological pathways, relationships between expression patterns of multiple genes, gene sequences for genes that are related in a particular biological phenomenon, gene sequences with homology to genes of unknown function, peptide sequences for proteins that are related to a biological phenomena, peptide sequences with homology to proteins of unknown function, a chemical specification of a binding site to a protein that is related to a biological phenomena, a toxicity profile of a therapeutic chemical, and a chemical specification of a therapeutic chemical.

42. (Withdrawn) A clearinghouse according to Claim 39 wherein the bioinformatic data suppliers comprise at least one of a pharmaceutical company research and development lab, an expression analysis outsourcer, a genome sequencing researcher and an academic research lab.

43. (Withdrawn) A clearinghouse according to Claim 39 wherein the bioinformatic data analysis results customers comprise at least one of a pharmaceutical company, a drug development company, an academic laboratory, a medical doctor and a genetic counselor.

44. (Withdrawn) A clearinghouse according to Claim 39 wherein the means for accepting comprises means for accepting the bioinformatic data and corresponding metadata from the corresponding bioinformatic data suppliers.

45. (Withdrawn) A clearinghouse according to Claim 44 wherein the metadata comprises at least one of a description of a cell from which the associated bioinformatic data was generated, a description of an environment from which the

associated bioinformatic data was generated, a description of a tool and/or experimental protocol that was used to generate the bioinformatic data, a description of a time at which the associated bioinformatic data was generated, a description of a chemical with which a subject of the bioinformatic data was treated, and a description of a pre-treatment state of the subject of the bioinformatic data.

46. (Withdrawn) A clearinghouse according to Claim 39 further comprising means for associating the bioinformatic data with the corresponding bioinformatic data suppliers.

47. (Withdrawn) A clearinghouse according to Claim 39 further comprising:

means for identifying the subset of the bioinformatic data from the bioinformatic data; and

means for recording the identification of the subset of the bioinformatic data that was used in the analyzing.

48. (Withdrawn) A clearinghouse according to Claim 39 wherein the means for analyzing comprises means for performing at least one of expression profiling, proteomic analysis, image analysis, clustering, sorting and generating a self-organized map.

49. (Withdrawn) A clearinghouse according to Claim 39 wherein the means for providing comprises means for selling the bioinformatic data analysis results to the at least one bioinformatic data analysis results customer for a lump sum payment, a royalty stream, and/or securities, such as corporate stock.

50. (Withdrawn) A clearinghouse according to Claim 49 wherein the means for compensating comprises means for providing the bioinformatic data suppliers that supplied the subset of the bioinformatic data with a portion of the lump sum payment and/or the royalty stream as compensation for their supplying the subset

of the bioinformatic data that was analyzed to generate the bioinformatic data analysis results that were sold to the at least one bioinformatic data analysis results customer.

51. (Withdrawn) A clearinghouse according to Claim 39 further comprising:

means for identifying the subset of the bioinformatic data from the bioinformatic data; and

means for determining a relative contribution of members of the subset of the bioinformatic data to the bioinformatic data analysis results.

52. (Withdrawn) A clearinghouse according to Claim 51 wherein the means for compensating comprises means for compensating the bioinformatic data suppliers that supplied the subset of the bioinformatic data for their supplying the subset of the bioinformatic data as a function of a relative contribution of the members of the subset of the bioinformatic data to the bioinformatic data analysis results.

53. (Original) A computer program product that processes bioinformatic data, the computer program product comprising a computer-usable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising:

computer-readable program code that is configured to accept bioinformatic data from a plurality of bioinformatic data suppliers;

computer-readable program code that is configured to analyze a subset of the bioinformatic data to generate bioinformatic data analysis results;

computer-readable program code that is configured to provide the bioinformatic data analysis results to at least one bioinformatic data analysis results customer; and

computer-readable program code that is configured to authorize compensation for the bioinformatic data suppliers that supplied the subset of the bioinformatic data for their supplying the subset of the bioinformatic data that was analyzed to generate

the bioinformatic data analysis results that were provided to the at least one bioinformatic data analysis results customer.

54. (Original) A computer program product according to Claim 53 wherein the bioinformatic data comprises at least one of genomic data, chemical data, data on an effect of drugs or other therapies, medical patient data and information about phenotypes or disease states.

55. (Original) A computer program product according to Claim 53 wherein the bioinformatic data analysis results comprise at least one of specifications of biological pathways, relationships between expression patterns of multiple genes, gene sequences for genes that are related in a particular biological phenomenon, gene sequences with homology to genes of unknown function, peptide sequences for proteins that are related to a biological phenomena, peptide sequences with homology to proteins of unknown function, a chemical specification of a binding site to a protein that is related to a biological phenomena, a toxicity profile of a therapeutic chemical, and a chemical specification of a therapeutic chemical.

56. (Original) A computer program product according to Claim 53 wherein the bioinformatic data suppliers comprise at least one of a pharmaceutical company research and development lab, an expression analysis outsourcer, a genome sequencing researcher and an academic research lab.

57. (Original) A computer program product according to Claim 53 wherein the bioinformatic data analysis results customers comprise at least one of a pharmaceutical company, a drug development company, an academic laboratory, a medical doctor and a genetic counselor.

58. (Original) A computer program product according to Claim 53 wherein the computer-readable program code that is configured to accept comprises computer-readable program code that is configured to accept the bioinformatic data and corresponding metadata from the corresponding bioinformatic data suppliers.

59. (Original) A computer program product according to Claim 58 wherein the metadata comprises at least one of a description of a cell from which the associated bioinformatic data was generated, a description of an environment from which the associated bioinformatic data was generated, a description of a tool and/or experimental protocol that was used to generate the bioinformatic data, a description of a time at which the associated bioinformatic data was generated, a description of a chemical with which a subject of the bioinformatic data was treated, and a description of a pre-treatment state of the subject of the bioinformatic data.

60. (Original) A computer program product according to Claim 53 further comprising computer-readable program code that is configured to associate the bioinformatic data with the corresponding bioinformatic data suppliers.

61. (Original) A computer program product according to Claim 53 further comprising:

computer-readable program code that is configured to identify the subset of the bioinformatic data from the bioinformatic data; and

computer-readable program code that is configured to record the identification of the subset of the bioinformatic data that was used in the analyzing.

62. (Original) A computer program product according to Claim 53 wherein the computer-readable program code that is configured to analyze comprises computer-readable program code that is configured to perform at least one of expression profiling, proteomic analysis, image analysis, clustering, sorting and generating a self-organized map.

63. (Original) A computer program product according to Claim 53 wherein the computer-readable program code that is configured to provide comprises computer-readable program code that is configured to authorize selling the bioinformatic data analysis results to the at least one bioinformatic data analysis

results customer for a lump sum payment, a royalty stream, and/or securities, such as corporate stock.

64. (Original) A computer program product according to Claim 63 wherein the computer-readable program code that is configured to compensate comprises computer-readable program code that is configured to provide the bioinformatic data suppliers that supplied the subset of the bioinformatic data with a portion of the lump sum payment, the royalty stream and/or the securities as compensation for their supplying the subset of the bioinformatic data that was analyzed to generate the bioinformatic data analysis results that were sold to the at least one bioinformatic data analysis results customer.

65. (Original) A computer program product according to Claim 53 further comprising:

computer-readable program code that is configured to identify the subset of the bioinformatic data from the bioinformatic data; and

computer-readable program code that is configured to determine a relative contribution of members of the subset of the bioinformatic data to the bioinformatic data analysis results.

66. (Original) A computer program product according to Claim 65 wherein the computer-readable program code that is configured to authorize compensation comprises computer-readable program code that is configured to authorize compensation for the bioinformatic data suppliers that supplied the subset of the bioinformatic data for their supplying the subset of the bioinformatic data as a function of a relative contribution of the members of the subset of the bioinformatic data to the bioinformatic data analysis results.